

REMARKS

This Amendment is response to the Non-Final Office Action of May 17, 2007. Reconsideration and allowance of claims 1, 2, 4, 7, 8, 10-13, 17, and 19-23 is requested.

The Office Action

Claim 4 stands rejected under 35 U.S.C. § 102(e) as being anticipated by Sanders (U.S. Patent No. 6,568,109).

Claims 1-2, 7-13 and 17-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sanders in view of Kniveton et al. (U.S. Patent No. 5,939,996).

Claims 22 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sanders in view of Kniveton and further in view of Graff et al. (U.S. Patent No. 5,451,017).

Rejection of Claim 4 under 35 U.S.C. § 102(e)

Claim 4 stands rejected under 35 U.S.C. § 102(e) as being anticipated by Sanders (U.S. Patent No. 6,568,109). This rejection should be withdrawn for at least the following reason: Sanders fails to disclose each and every aspect set forth in independent claim 4.

Independent claim 4 recites "at least one sensor set to detect an external light load directed to the light emitting surface and generate a control signal indicative of a presence of the light load, wherein *the at least one sensor being positioned in an enclosure which is located remotely from the light source...*" "Remotely," is used in claim 4 to mean "in a different location," as described in the specification at page 5, lines 7-10: "...the sensing device **24** is located in a remote **enclosure**. The advantage of the *remote location* is the better means for orienting and aligning the sensing device **24** towards the source of the oncoming illumination **16**. It is particularly useful if the signaling device **10** is positioned on sharp bends or transit." Sanders fails to describe this aspect of applicants' claimed innovation.

The Examiner maintains the contention that the aspect of a light sensing device, located remotely to a light source or LED, is described by Figure 1 of Sanders.

Specifically, the Examiner interprets Figure 1, without the benefit of textual description thereof, to conclude that "photo sensor 4 is located remotely from LED 3 in Figure 1." In the Examiner's response to applicant's arguments filed on March 5, 2007, the Examiner asserts that the sensor 4 is a "distance away" from the LED 3, as shown in Figure 1, and that "according to any dictionary a remote is something that is located at a distance from another thing. Contrary to the Examiner's assertion, it is quite evident that the photo sensor depicted in Sanders' Figure 1 is immediately adjacent to the LED, and that the two devices are mounted in the front surface of *a single container* that houses the device. Thus, the Sanders photo sensor is neither "located in a *remote enclosure*" nor in a "remote location." Accordingly, Sanders fails to describe each and every aspect set forth in the subject claim.

In view of at least the foregoing, it is readily apparent that Sanders fails to anticipate independent claim 4. Withdrawal of this rejection is respectfully requested.

Rejection of Claims 1-2, 7-13, and 17-21 under 35 U.S.C. § 103(a)

Claims 1-2, 7-13 and 17-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sanders in view of Kniveton et al. (U.S. Patent No. 5,939,996). This rejection should be withdrawn for at least the following reason: neither Sanders nor Kniveton et al., alone or in combination, teaches or suggests all of the claimed aspects set forth in independent claims 1, and 11.

Independent claim 1 has been amended herein to set forth the aspect that "the at least one LED and the at least one sensor are *disposed on a same printed circuit board*." This aspect is supported by the specification at, for example, page 5, lines 4-5: "a sensing device **24** such as a photodiode is located on the *same* printed circuit board as LEDs **20**." Neither of the cited references teaches or suggests mounting both the LEDs and the sensing device on a same printed circuit board.

Independent claim 11 has been amended to set forth the aspect of "mounting the at least one *sensor in an enclosure in a location remote from the light source*." Similarly, independent claim 23 has been amended to recite that "the *sensor is in an enclosure positioned remotely from the signaling device*." As discussed above with regard to the rejection of claim 4, the specification sets forth, at page 5, lines 7-8: "...the

sensing device 24 is located in a remote enclosure." Neither of the cited references sets forth this aspect of the subject claims.

Although the Examiner responded to applicants' amendment to include remote positioning of the sensor enclosure, the Examiner maintains the assertion that Sanders teaches locating the sensor on a printed circuit board, simply stating that "Sanders discloses one LED 3 and at least one sensor 4 are disposed on the printed circuit board (fig. 1)." However, as stated in the previous Amendment, a close examination of Figure 1 and the associated description thereof reveals no mention of a circuit board, let alone mounting a sensor thereto. Sanders does, however, mention a circuit board 8 in Figure 2, which is positioned on the bottom of the container 7, while the sensor 4 and LED 3 are located in the front surface of the container 7, and **attached to the circuit board 8 by one or more cables 10**. (See, e.g., Column 3, lines 49-52.) Nowhere does Sanders teach or suggest a photo sensor *disposed on* a printed circuit board. Kniveton et al. fails to overcome the deficiencies of Sanders with regard to the claimed aspects. Specifically, Kniveton et al. fails to teach or suggest a sensor disposed on a printed circuit board.

Similarly, the Examiner asserts that Sanders teaches locating the sensor on a printed circuit board, stating that "Sanders discloses one sensor 4 is positioned in a location remote from the light source (fig. 1-fig. 2)." Again, examination of the textual description of the referenced figures fails to reveal a teaching or suggestion of a sensor that is located in an enclosure from the light source. Moreover, it is unclear how a visual interpretation of Figures 1 and 2 of Sanders could teach or suggest both a remotely located sensor, as set forth in claims 11 and 23, and a sensor that is disposed on the same circuit board as the light source, as set forth in claim 1. Contrary to the Examiner's assertion, the sensor 4 of Sanders is positioned immediately adjacent to the light source 3 (neither of which are mounted on a printed circuit board), and thus is not positioned in an enclosure in a location remote from the light source. Kniveton et al. fails to overcome the deficiencies of Sanders with regard to the claimed aspects. Specifically, Kniveton et al. fails to teach or suggest a sensor located remotely from the light source.

Claims 1 and 11 have further been amended to recite that "the current is raised

by pulsing the current to cause the at least one LED to pulse at a frequency higher than visually perceivable" which aspect was previously set forth in dependent claims 9 and 18. In rejecting claims 9 and 18, the Examiner cites Sanders, column 5, lines 7-11, which describes a 100MHz oscillator that drives a set of decimal dividers to divide a signal. However, the cited signal merely drives a counter that displays an address. The cited passage in no way describes a pulsing current signal that causes an LED to pulse in a manner that indistinguishable to a human eye as set forth in amended claim 1.

In view of the foregoing, it is readily apparent that neither Sanders nor Kniveton et al., alone or in combination, make obvious independent claims 1, 11, and 23 (and claims 2, 7-8, 10-13, 17, and 19-22, which depend respectively there from). Withdrawal of this rejection is respectfully requested.

Rejection of Claims 22 and 23 under 35 U.S.C. § 103(a)

Claims 22 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sanders in view of Kniveton, and further in view of Graff et al. (U.S. Patent No. 5,451,017). Withdrawal of this rejection is respectfully requested for at least the following reason: Graff et al. fails to overcome the deficiencies of Sanders and Kniveton with regard to the aspect of locating a sensor remotely from a light source.

Claim 22 depends from independent claim 11, which now sets forth the aspect of locating a sensor in an enclosure remotely from a light source. Neither of the independent claims (11 and 23) is made obvious by the combination of Sanders and Kniveton, as discussed above.

Additionally, claim 23 has been amended to include the aspect of increasing the current such that the current pulses at a frequency high enough to cause the light source to pulse so rapidly that the pulsing is imperceptible to a human. Graff does not overcome the deficiencies of Sanders and Kniveton with regard to teaching or suggesting a locating a sensor remotely from a light source, nor with regard to the claimed aspect of high-frequency current pulsing.

In view of the above, it is respectfully submitted that this rejection should be withdrawn.

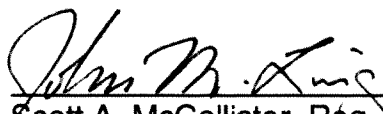
CONCLUSION

For the reasons detailed above, it is respectfully submitted all claims remaining in the application (Claims 1, 2, 4, 7, 8, 10-13, 17, and 19-23) are now in condition for allowance.

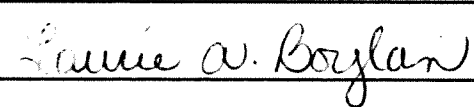
Respectfully submitted,

FAY SHARPE LLP

8.17.07
Date



Scott A. McCollister, Reg. No. 33,961
John M. Ling, Reg. No. 51,216
1100 Superior Avenue, Seventh Floor
Cleveland, OH 44114-2579
216-861-5582

CERTIFICATE OF MAILING OR TRANSMISSION	
I hereby certify that this correspondence (and any item referred to herein as being attached or enclosed) is (are) being	
<input checked="" type="checkbox"/> deposited with the United States Postal Service as First Class Mail, addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.	
<input type="checkbox"/> transmitted to the USPTO by facsimile in accordance with 37 CFR 1.18 on the date indicated below.	
Express Mail Label No.:	Signature: 
Date: <u>August 17, 2007</u>	Name: Laurie A. Boylan

L:\jml\GLOZ\GLOZ 2 00153\Amendment to OA dated 5.17.07.docx

Docket No.: 4022 2 0053 Postcard No.: 424
Applicant(s): Summers et al. Initials: JML/lak
Title: METHOD AND APPARATUS FOR Date: August 17, 2007
☐ New Patent Application, including Transmittal (☐ Utility ☐ Design) Pat. No.:
☐ Prov. ☐ Cont. ☐ CIP ☐ Div. ☐ RCE ☐ PCT Request ☐ 371 Submission Ser. No.: 10/153 580
PAGES OF SPECIFICATION FILED: January 3, 2004
PAGES OF CLAIMS (TOTAL CLAIMS INDEPENDENT CLAIMS)
PAGES OF ABSTRACT OTHER:
SHEETS OF DRAWINGS (FIGS.)
☐ Declaration and Power of Attorney
☐ Assignment and Recordation Form Cover Sheet
☐ Preliminary Amendment
☐ Claim for Right of Priority - App. No.:
Filed: WHICH CLAIMS PRIORITY TO:
App. No.: Filed:
☐ Priority Document(s)
☐ Request & Certification Under 35 U.S.C. 122(b)(2)(B)(i)
☐ Information Disclosure Statement, including PTO
Form 1449 and REFERENCES (IF REQUIRED)
☒ Amendment (due: August 17, 2007)
☒ Amendment Transmittal Letter
☐ Petition for Extension of Time for MONTHS
☐ Response to Notice to File Missing Parts
☐ Notice of Appeal
☐ Issue Fee ☐ Publication Fee
☐ Fees Submitted in the Amount of \$
Method of Payment: ☐ PTO Form 2038
☐ Charge Deposit Account
☐ Check(s) Enclosed

DOCKETED

